



5fw

AP/LTB

CERTIFICATE OF MAILING (37 CFR 1.8(a))

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited in triplicate with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: M/S Appeal Brief-Patents, Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450.

Janet Farr

(Type or print name of person mailing paper)

Janet Farr

(Signature of person mailing paper)

Date: September 2, 2004

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Docket No. AREWP0105US

PATENT

In re Appellant:

Alexander Mayzel	:	Conf. No.:	6140	
Serial No:	09/773,233	:	Art Unit:	1773
Filed:	January 31, 2001	:	Examiner:	Monique R. Jackson

For: CORROSION RESISTANT COATING GIVING POLISHING EFFECT

APPEAL BRIEF

M/S Appeal Brief - Patents
Commissioner of Patents
Alexandria, VA 22313-1450

Dear Sir:

This Appeal Brief for the above-identified application is in response to the final Office Action mailed March 29, 2004 and Advisory Action mailed July 6, 2004, and is submitted in triplicate. Appellants' Notice of Appeal was received by the OIPE on July 2, 2004. Accordingly, Appellant's Appeal Brief is timely filed without an extension of time.

09/07/2004 HGUTEMA1 00000100 09773233

01 FC:1402

330.00 OP

Thomas W. Adams
Registration No. 35,047
Renner, Otto, Boisselle & Sklar, LLP
1621 Euclid Ave.
Cleveland, Ohio 44115
Customer No. 23908
(216) 621-1113



Serial No. 09/773,233

Docket No. AREWP0105US

TABLE OF CONTENTS

I. REAL PARTY IN INTEREST	1
II. RELATED APPEALS AND INTERFERENCES	1
III. STATUS OF CLAIMS	1
IV. STATUS OF AMENDMENT	1
V. SUMMARY OF INVENTION.....	1
VI. ISSUES ON APPEAL	2
VII. GROUPING OF CLAIMS	3
VIII. ARGUMENT	3
A. CLAIMS 19-21, 24-27 AND 30-33 WOULD NOT HAVE BEEN NOT OBVIOUS OVER SCHWING ET AL (U.S. PAT. NO. 5,656,335) IN VIEW OF DAS ET AL (U.S. PAT. NO. 4,422,886).	3
1. INDEPENDENT CLAIMS 19 and 25 DISTINGUISH OVER THE CITED REFERENCES	3
2. DEPENDENT CLAIMS 20, 21, 24, 26, 27 and 30-33 FURTHER DISTINGUISH OVER THE CITED REFERENCES	9
B. CLAIMS 22-23 and 28-29 WOULD NOT HAVE BEEN OBVIOUS OVER SCHWING ET AL (U.S. PAT. NO. 5,656,335) IN VIEW OF DAS ET AL (U.S. PAT. NO. 4,422,886) AND FURTHER IN VIEW OF MOKERJI (U.S. PAT. NO. 6,090,490).....	11
C. THE EXAMINER HAS FAILED TO STATE PROPER PRIMA FACIE CASE OF OBVIOUSNESS	13
1. THE REQUIREMENTS FOR A PRIMA FACIE CASE OF OBVIOUSNESS	13
2. THE REQUIREMENTS FOR A PRIMA FACIE CASE OF OBVIOUSNESS WERE NOT MET.....	14
IX. CONCLUSION	16
APPENDIX	17
CLAIMS ON APPEAL	17



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Docket No. AREWP0105US

PATENT

In re Appellant:

Alexander Mayzel	:	Conf. No.:	6140
Serial No: 09/773,233	:	Art Unit:	1773
Filed: January 31, 2001	:	Examiner:	Monique R. Jackson

For: CORROSION RESISTANT COATING GIVING POLISHING EFFECT

APPEAL BRIEF

M/S Appeal Brief - Patents
Commissioner of Patents
Alexandria, VA 22313-1450

Dear Sir:

This Appeal Brief for the above-identified application is in response to the final Office Action mailed March 29, 2004 and Advisory Action mailed July 6, 2004, and is submitted in triplicate. Appellants' Notice of Appeal was received by the OIPE on July 2, 2004. Accordingly, Appellant's Appeal Brief is timely filed without an extension of time.

I. REAL PARTY IN INTEREST

The real party in interest in this appeal is Areway, Inc., 8525 Clinton Road, Brooklyn, Ohio 44114.

II. RELATED APPEALS AND INTERFERENCES

Appellant is aware of no related appeals or interferences.

III. STATUS OF CLAIMS

Claims 19-33 are presently pending in the Application, and stand finally rejected, for which rejection Appellant brings the present appeal to the Board. An Appendix accompanying this brief contains a listing of the claims pending and involved in this appeal.

IV. STATUS OF AMENDMENT

An amendment under 37 C.F.R. 1.116(a) was filed in this application on May 17, 2004. An Advisory action was mailed on 21 April 2004, accepting entry of Appellant's request for reconsideration but maintaining the rejection of claims 19-33. Thus, no amendment is currently pending.

V. SUMMARY OF INVENTION

As disclosed in the summary section of the specification and in claim 19, Appellants' invention, in one embodiment, relates to a multi-layer coating having a polished effect for the surface of an article of manufacture, the multi-layer coating comprising: a polymeric layer overlying the surface of the article; a metal layer overlying the polymeric layer comprising at least one atomized metal; a corrosion inhibiting inorganic layer overlying the metal layer, wherein the corrosion inhibiting inorganic layer is a conversion coating; and a transparent top coat layer overlying the corrosion inhibiting inorganic layer.

The present invention addresses problems associated with prior art methods used to produce a highly polished appearance of the surface of manufactured articles. Such prior art methods include applying thin chrome layers using electroplating or vacuum deposition methods. Page 1, lines 11-13. The prior art methods generally need mechanical polishing prior to application of the chrome layer, which is an undesirable step for several reasons. See the specification, page 1, lines 13-18.

In one embodiment according to the invention, application of a conversion coating to the metal layer comprising at least one atomized metal provides an unexpected benefit in that the conversion coating, applied to one side of the metal layer, provides corrosion protection to both sides of the metal layer. While it might be expected that the conversion coating would provide corrosion protection to a metal surface on which it is applied, it is wholly unexpected that the conversion coating would provide corrosion protection to both sides of the atomized metal layer. This benefit of the presently disclosed and claimed invention is neither disclosed nor suggested by the prior art. Thus, the conversion coating of the present invention provides more corrosion protection than would be expected, even if one thought to try applying a conversion coating to such a substrate, as the Examiner contends would have been obvious based on the asserted combination of prior art cited in the Office Action.

VI. ISSUES ON APPEAL

The claims on appeal stand rejected under 35 U.S.C. § 103(a). The issues in this appeal are as follows.

- A. CLAIMS 19-21, 24-27 AND 30-33 WOULD NOT HAVE BEEN OBVIOUS OVER SCHWING ET AL (U.S. PAT. NO. 5,656,335) IN VIEW OF DAS ET AL (U.S. PAT. NO. 4,422,886).
- B. CLAIMS 22-23 and 28-29 WOULD NOT HAVE BEEN OBVIOUS OVER SCHWING ET AL IN VIEW OF DAS ET AL AND FURTHER IN VIEW OF MOKERJI (U.S. PAT. NO. 6,090,490).

VII. GROUPING OF CLAIMS

Appellants' claims, grouped as follows, stand or fall as follows. Claims 19-21, 25-27 and 31-33 stand or fall together. Claims 22 and 28 stand or fall together. Claims 23 and 29 stand or fall together. Claims 24 and 30 stand or fall together.

VIII. ARGUMENT**A. CLAIMS 19-21, 24-27 AND 30-33 WOULD NOT HAVE BEEN OBVIOUS OVER SCHWING ET AL (U.S. PAT. NO. 5,656,335) IN VIEW OF DAS ET AL (U.S. PAT. NO. 4,422,886).**

Claims 19-21, 24-27 and 30-33 stand rejected as obvious over Schwing et al in view of Das et al. Appellant traverses this rejection and submits that the rejection should be reversed by the Board for at least the following reasons.

1. INDEPENDENT CLAIMS 19 AND 25 DISTINGUISH OVER THE CITED REFERENCES.

Claims 19 and 25 were rejected as obvious over Schwing et al., in view of Das et al. The Examiner contended:

Schwing et al teaches a process for coating a substrate with a metal material giving a polished effect wherein the process includes cleaning the substrate 10 and forming a polymer base coating 12 on the substrate by burning on a powdered lacquer, coating the coated substrate with a metal 14 such as aluminum giving a polished effect by plasma deposition or sputtering within a vacuum chamber, and applying a transparent top coating 16 on the metallized layer by burning on a powdered lacquer, wherein the coated substrate may contain an optional intermediate protective coating between the metallized layer and the top coating layer, as well as an optional final scratch-proof protective coating on the top coating layer; and wherein the substrate may be a metal and the shaped body or substrate can be cleaned and degreased so that it can be

subjected to conversion treatment followed by the drying prior to applying the base coating (Abstract; Col. 2, lines 22-31; Col. 3, lines 1-42.) Schwing et al teach that the method of utilizing a powdered lacquer helps to overcome environmental hazards and corrosion protection problems of previous methods utilizing a wet lacquer (Col. 1, lines 7-33.)

The Examiner admitted that Schwing et al. fails to teach application of a conversion coating over the metal material layer, and that there are problems associated with the use of a wet lacquer.

The Examiner sought to remedy the deficiency of Schwing et al. by modification in view of the teaching of Das et al. The Examiner contended Das et al. discloses a conversion coating, and that the conversion coating would have been obvious to apply between the metal material layer (14) and the top coating (16) of Schwing et al.

With respect to Das et al., the Examiner contended:

Das et al. teach an improved surface treatment for aluminum and aluminum alloy surfaces wherein an inorganic conversion coating comprising zirconium salts is applied to the aluminum surface to improve corrosion resistance of the aluminum surface and to improve adhesive of subsequent coating or lacquer layers applied to the treated aluminum surface.

The Examiner concluded that it would have been obvious to apply the conversion coating of Das et al. to the aluminum metal material layer of Schwing et al. The Examiner contended that the motivation to utilize the conversion coating of Das et al. would be "to provide improved corrosion resistance and improved adhesion to the subsequent polymer coating layer(s) given the reasonable expectation of success."

Appellant respectfully traverses this rejection for at least the following reasons.

1. Schwing et al. teach against additional layers adjacent the metal layer.

The Examiner states "...the coated substrate may contain an optional intermediate protective layer between the metallized layer and the top layer, as well as

an optional final scratch proof coating on the top coating layer." But, the "optional intermediate protective layer" referred to by the Examiner is not optional. Rather, the Examiner's 'optional intermediate protective layer' is the top coating (16) and is not optional. See column 2, lines 22-29. The top coating (16) layer is only shown adjacent to the metal layer. The presence, location and arrangement of the top coating (16) offers the only corrosion protection suggested in Schwing et al, and there is no disclosure, teaching or suggestion that the top coating (16) would function as desired if not adjacent to the metal layer. That is, if an intervening layer is inserted next to the metal layer, there is no indication if the top coating (16) would function as designed.

Schwing et al. suggest that if additional protection is needed or desired, the additional protective layer can be added overlying the top coating (16) rather than overlying the metal layer. See column 2, line 30. If the references were combined as suggested by the Examiner, one of ordinary skill in the art would add the additional layer where Schwing et al. suggests additional layers should go, i.e., over, not under the top coating (16). Accordingly, if an additional protective layer, such as the conversion coating from Das et al., would be added into the coated substrate of Schwing et al., it would be applied as an overlay to the top coating (16) rather than be applied adjacent to the metal layer.

For illustration only, if the layers in Appellant's claim 19 were labeled A-B-C-D, and assuming Schwing et al. teach A-B-D and Das et al. teach C, according to Schwing et al. adding a new layer C to A-B-D would create A-B-D-C not the claimed A-B-C-D. Clearly these references, even if combined improperly as suggested by the Examiner, would not yield the instant invention as claimed. Thus, the Examiner failed to state a *prima facie* case of obviousness with regard to claims 19 and 25.

2. The coating method disclosed by Das et al. is inimical for use with the coating disclosed in Schwing et al.

No person of ordinary skill in the art would be motivated to modify Schwing et al. in view of Das et al. This is because a thin metal film would not be expected to survive

contact with a conversion solution having an extreme pH. The conversion coating process of Das et al. discloses a solution with an extreme pH, and Schwing et al. discloses a thin film. Accordingly, there would be no reasonable expectation of success if Schwing et al. were modified to use the conversion solution of Das et al. as suggested by the Examiner.

The metal layer (14) of Schwing et al. has an almost negligible thickness. This comports with the processes described in Schwing et al. – plasma deposition and sputtering – which produce very thin (e.g., mono-molecular) films.

The Das et al. conversion coating may be useful for thicker items than those taught by Schwing et al. Das et al. teach coating solutions for forming conversion coatings on metal substrates. The process may work well for metal articles having sufficient depth, such as cans, rigid container stocks, end stocks, architectural and building products and extrusions, but would not work so well for a thin film. See for example Col. 3, lines 28-34. The Das et al. "conversion coating" is the application of a solution, sometimes with an extreme pH, to a metal surface in which solute (chromium, phosphate, zirconium, etc.) chemically converts the metal surface. Metal from the substrate surface is consumed to a certain depth during the process. Generally, the thicker the conversion coating is to be, the deeper into the substrate the solution must go to find metal with which to react. If a substrate is too thin, the entire substrate may be consumed during the creation of the conversion coating.

Appellant submits that contact of the harshly acidic solution of Das et al. with a thin metal film as disclosed in Schwing et al. would reasonably be expected to destroy the thin film, and therefore is inimical for use with a thin film. In other words, one of ordinary skill in the art would not expect the conversion process of Das et al. to be a suitable process for use with a very thin metal film as described in Schwing et al. A person of ordinary skill in the art would expect the conversion process of Das et al. to destroy or convert the entire thickness of the very thin metal film taught by Schwing et al. For this reason at least, there can be no reasonable expectation of success in

modifying the teaching of Schwing et al. to include a solution process as suggested in Das et al. Without a reasonable expectation of success the Examiner has failed to state a *prima facie* case of obviousness with regard to claims 19 and 25, and the claims dependent thereon.

3. Use of solution (wet) coatings as taught by Das et al are eschewed by Schwing et al.

No person of ordinary skill in the art would be motivated to modify Schwing et al. in view of Das et al. Because the application methods disclosed in Schwing et al. are not compatible with the application methods disclosed in Das et al. In particular, Schwing et al. teaches away from solution coatings, and Das et al. relies on solution coatings.

Schwing et al. compare and contrast vapor deposition techniques vis-à-vis wet lacquer coating techniques at column 1, line 20-28, "It is known that PVD or CVD processes can be used in conjunction with a wet-lacquer technique in order to achieve metallizing, although the required durability cannot be achieved in those areas that are endangered by corrosion. The mechanical and chemical stability of wet lacquers is not sufficient for coating parts that are highly stressed... and wet lacquering also gives rise to environmental hazards." The Examiner admits, as noted above, that "Schwing et al teach that the method of utilizing a powdered lacquer helps to overcome environmental hazards and corrosion protection *problems of previous methods utilizing a wet lacquer* (Col. 1, lines 7-33.)" (emphasis added).

Schwing et al. describe an application method in terms of vapor deposition only. One of ordinary skill in the art reasonably could only conclude that a wet lacquer or solution was considered by Schwing et al., was discarded, and would not be an improvement. Neither would one of ordinary skill be motivated to use a wet lacquer or solution, as suggested by the Examiner, because Schwing et al. identifies such a method as contributing to the problem attempted to be solved.

By way of contrast, Das et al. uses a solution having a pH of below about 3. Das et al. states that the solutions have, at column 4, line 62 et seq, "pH's below about 3.0,

preferably below about 2.5, and most preferably below about 2.0", and, at column 6, lines 31-34, "1.2 - 3.0, most preferably 1.5 - 2.0."

Accordingly, not only does Schwing et al. disclose that the application technique used by Das et al. would not work or would exacerbate the problem, but a person of ordinary skill would not expect the combination of the two to succeed in producing a useful article. More particularly, the combination and/or modification of Schwing and Das would not produce the invention as defined by Appellant's claims. Thus, the Examiner failed to state a *prima facie* case of obviousness with regard to claims 19 and 25, and the claims that depend thereon.

4. The Examiner takes an unsupportable position with regard to motivation to modify the teaching of Schwing et al.

In the Office Action dated July 6, 2004, the Examiner correctly states the requirements for establishing obviousness, but draws an unsupportable conclusion as to the motivation to modify the teaching of Schwing et al. "The Examiner takes the position that Schwing et al. provide the suggestion for improved corrosion resistance while Das et al. provide the motivation for utilizing an inorganic conversion coating layer on the metal layer as instantly claimed." Paper No. 07012004, page 3.

A close examination of Schwing et al. would indicate to one of ordinary skill in the art that the issue of corrosion resistance had been addressed. In column 1, third paragraph, a problem addressed by Schwing et al. is the deficiency of the previous corrosion protection methods. Schwing et al. addresses this in column 3, lines 21-22, in that "The top coating provides for good ... chemical resistance." This specifically addresses the deficiency of the previous methods. Contrary to the Examiner's assertion that there is a suggestion to improve the corrosion resistance, one of ordinary skill in the art taking Schwing et al. at face value would believe that any problem of corrosion resistance already had been solved by Schwing et al. If the problem had been solved, there can be no motivation to modify the teaching to again solve the problem.

But assuming that one were to pursue the goal of solving a problem already addressed, following the teaching of Schwing et al. would motivate one to add further topcoat layers or to thicken existing layers - additional top coat thickness (e.g., changing from 25 microns to 125 microns) or by adding layers onto the top coat (e.g., the scratch resistant layer). See column 3, lines 16-24. Those are methods taught by Schwing et al. to address such problems. There is no teaching or suggestion, explicit or implied, that one would add layers of other materials or replace layers that are required.

While Appellant appreciates that "one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references", Appellant submits that one cannot reject claims for obviousness based on picking and choosing elements from multiple references, while disregarding the clear teaching of the remainder of the same references. Furthermore, Appellant is not attacking the references individually; rather, Appellant is attacking the combination as contended by the Examiner. Appellant has shown, in the foregoing, that based on the teachings of the individual references, the combination asserted by the Examiner cannot properly be made and, even if it was attempted to be made the claimed invention would not be obtained.

For these reasons, Appellant submits that, the Examiner failed to state a *prima facie* case of obviousness with regard to claims 19 and 25, and therefore the rejection of all the pending claims should be reversed.

2. DEPENDENT CLAIMS 20-21, 24, 26-27 AND 30-33 DISTINGUISH OVER THE CITED REFERENCES.

Claims 20-21, 24, 26-27 and 30-33 depend respectively from independent claims 19 and 25. It is axiomatic that claims that depend from allowable claims are also allowable. Because claims 19 and 25 are allowable for at least the reasons discussed above, dependent claims 20-21, 24, 26-27 and 30-33 are also allowable.

Notwithstanding the foregoing, there are additional reasons why the following groups of claims are allowable.

1. Claims 24 and 30 further distinguish over the references.

Claims 24 and 30 define “an adhesion promoting layer.” The Examiner in the Final Office Action relies on the use of an adhesion promoting layer as being “well established in the art” and therefore obvious to use between any two adjacent layers. Official notice unsupported by documentary evidence should only be taken by the Examiner where the facts asserted to be well-known, or to be common knowledge in the art, are capable of instant and unquestionable demonstration as being well-known. As noted by the court in *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970), the notice of facts beyond the record which may be taken by the Examiner must be "capable of such instant and unquestionable demonstration as to defy dispute" (citing *In re Knapp Monarch Co.*, 296 F.2d 230, 132 USPQ 6 (CCPA 1961)). It is not appropriate for the examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known. See *In re Ahlert*, 424 F.2d at 1091, 165 USPQ at 420-21; See also *In re Grose*, 592 F.2d 1161, 1167-68, 201 USPQ 57, 63 (CCPA 1979).

In the instant case, the Examiner invoked the addition of an adhesion promoting layer without support and inserted the layer into the structure of Schwing et al. as needed. This is inappropriate and the Examiner has not shown that such a modification is “capable of such instant and unquestionable demonstration as to defy dispute.”

According to the process of Schwing et al., at column 2, lines 60 et seq., “the substrate (10) with the base coat is placed in a reaction chamber that is initially at a [low] pressure ... to remove oxygen and nitrogen molecules, which could possibly lead to undesirable reactions...” “the reaction chamber is flooded with a process gas...” and the metal layer is vapor deposited. There is no indication at what point of *that* process the Examiner is asserting that it is common knowledge to apply an adhesion promoting layer. There can be no instant and unquestionable demonstration of knowledge as to

where the adhesion promoting layer could go, what part of the process would be amenable to its application – if any – or whether the adhesion promotion layer would adversely affect the carefully prepared substrate or base coat surface described in Schwing et al. Thus, the Examiner failed to state a *prima facie* case of obviousness with regard to claims 24 and 30.

For at least the foregoing reasons, Appellant respectfully submits that all of claims 19-21, 24-27 and 30-33 distinguish over the cited references and the combination of the cited references.

B. CLAIMS 22-23 AND 28-29 WOULD NOT HAVE BEEN OBVIOUS OVER SCHWING ET AL. IN VIEW OF DAS ET AL. AND FURTHER IN VIEW OF MOKERJI (U.S. PAT. NO. 6,090,490).

Claims 22-23 and 28-29 stand rejected as obvious over Schwing et al. in view of Das et al. and further in view of Mokerji. Claims 22-23 and 28-29 depend respectively from independent claims 19 and 25 and are allowable for at least the reasons stated with respect to those claims.

Notwithstanding the foregoing, there are additional reasons why claims 22-23 and 28-29 are separately allowable. Appellant traverses this rejection and submits that the rejection should be reversed by the Board for at least the following reasons.

1. DEPENDENT CLAIMS 22-23 AND 28-29 DISTINGUISH OVER THE CITED REFERENCES.

1. The combination of references do not disclose a ceramic as defined by claims 22 and 28, and the Examiner has not met the burden to use the references as contended.

The Examiner contends that it is well known in the art that an organosiloxane topcoat layer can provide improved protective properties to a coated substrate, such as abrasion and scratch resistance, and so it would have been obvious to apply a coating,

such as taught by Mokerji, to an article produced by the combined teaching of Schwing et al. and Das et al.

Organopolysiloxane as disclosed in Mokerji does not read on “ceramic” as defined in claims 22 and 28. An organopolysiloxane may not be considered an equivalent of a ceramic merely by virtue of having an inorganic basis as suggested by the Examiner or by being a cross-linked network of silicon and oxygen atoms having pendent carbons. The term ceramic has a generally accepted meaning of a being a non-metallic mineral. The use of the terms organic, ceramic, and organopolysiloxane in differing dependent claims requires interpretation via claim differentiation. If, as the Examiner contends, polysiloxane reads on all of organic, ceramic and organopolysiloxane, then the Examiner must be taking the position that there is no functional difference between the claim terms organic, ceramic and organopolysiloxane. That is obviously neither intended nor technically correct, and should not be interpreted as such.

2. Schwing et al. teach away from the combination with Mokerji as suggested by the Examiner and there is no motivation to make this modification, as required.

One of ordinary skill would not be motivated to modify the organic coating of Schwing et al. with the polysiloxane coating of Mokerji. The Examiner admitted that neither Schwing et al. nor Das et al. teach an organopolysiloxane coating as defined in claims 23 and 29. The Examiner relies on Mokerji to correct the deficiency of the above references.

Schwing et al. disclose that a final coating “consisting of a carbon compound that is highly resistant to scratching” may be applied. Column 6, lines 29-31. As would be understood by a person of ordinary skill, an organopolysiloxane coating is outside the ambit of the “carbon compound” mentioned by Schwing et al. Appellant submits that in view of the teaching of Schwing et al. to use an organic layer for scratch protection, there is no motivation to look elsewhere, e.g., for an organopolysiloxane coating for scratch protection.

Further, there can be no motivation for replacing an organic coating with an organopolysiloxane coating without some indication contained in at least one of the references or knowledge in the art of the equivalence of the two distinctly different coating types. The Examiner identified no such equivalence. For at least these reasons, the rejections to claims 23 and 29 based on the combination of the references as suggested by the Examiner should be reversed.

For at least the foregoing reasons, Appellant respectfully submits that each of the rejected claims 22-23 and 28-29 patentably distinguishes over the combination of cited references.

In conclusion, the rejections of all of Appellant's claims 19-33 should be reversed because none of the references, alone or in combination, render Appellant's claimed invention obvious at the time the invention was made. Appellant respectfully request reversal of the Examiner's rejections of Appellant claimed invention under 35 U.S.C. § 103.

C. THE EXAMINER HAS FAILED TO PROPERLY STATE A *PRIMA FACIE* CASE OF OBVIOUSNESS.

1. THE REQUIREMENTS FOR A *PRIMA FACIE* CASE OF OBVIOUSNESS.

Three basic criteria must be met to establish a *prima facie* case of obviousness. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on Appellant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Appellant respectfully submits that neither the motivation nor the reasonable expectation of success criteria have been shown by the Examiner in the present case.

The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. “To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.” *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). Appellant respectfully submits that the Examiner has not carried the requisite burden.

2. THE REQUIREMENTS TO MAKE A PROPER *PRIMA FACIE* CASE WERE NOT MET.

Appellant submits that the Examiner failed to meet the requirements for making a *prima facie* case of obviousness because the Examiner improperly picked and chose elements from the references without motivation for the selections made. Further, Appellant submits that the Examiner used an impermissible “obvious to try” standard and has employed an impermissible hindsight reconstruction. The rejections therefore cannot be correct and should be reversed.

1. The Examiner improperly and selectively chose elements from the references for combination.

Appellant respectfully submits that neither Schwing et al. nor Das et al. provides no motivation to make the contended selection of elements from the cited references and the combination thereof, the showing of which is required to state a *prima facie* case of obviousness. For example, the motivation provided by the Examiner for the selection of the zirconium conversion coating is for the purpose of improved adhesion. But, the Das et al. conversion coating selected by the Examiner may not be the source of the good adhesion to overlying layers. The “good adhesion” may result from the additives such as the fluorophosphate compound and wetting agent, and not from the zirconium conversion coating itself, as noted at col. 3, lines 37-39. Thus, even if the motivation of improving

adhesion as suggested by the Examiner would be proper, the selection of the material by the Examiner to fulfill the requirement for all the claim limitations does not logically or necessarily follow from the motivation provided by the Examiner.

The Examiner must provide evidence in support of the alleged motivation to combine and modify references. Broad conclusory statements standing alone are not "evidence." See, *In re Dembiczkak*, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). Appellant respectfully submits that the Examiner's conclusory contention that the motivation would have been as stated is wholly insufficient and does not constitute the requisite evidence of motivation.

2. The Examiner used an impermissible "obvious to try" standard.

Appellant submits that the best that can be said for the alleged combination of Das et al. with Schwing et al. is that these references may possibly present an "obvious to try" situation. That is, it might be obvious to try applying the conversion coating of Das et al. to the metal material layer of Schwing et al., but this is legally insufficient to render obvious the presently claimed invention. The standard for obviousness is not "obvious to try", and thus there is not support for a *prima facie* case of obviousness. See, *In re O'Farrell*, 7 USPQ2d 1673, 1680 81 (Fed. Cir. 1988).

Appellant submits that while a person might think of trying the Das conversion coating process to the metal layer of Schwing, there is no motivation to do so, and no basis for having a reasonable expectation that doing so would be successful in providing any additional corrosion protection. Both the motivation and the reasonable expectation of success are required to support an obviousness rejection. Appellant submits that both are missing in the present case.

3. The Examiner used an impermissible hindsight reconstruction to supply the requisite motivation.

The asserted combination appears to be the result of hindsight reconstruction of Appellant's invention, based on Appellant's disclosure, not on what was in the prior art at the time the invention was made. The references do not contain any teaching which would lead a person to have a reasonable expectation of success, contrary to the Examiner's

contention. While selection of the elements may be possible with the aid of hindsight, there is nothing to suggest that the combination of the teachings of the two references would provide a person, *a priori*, with an expectation of success in obtaining improved corrosion protection or in reaching the claimed invention, since there is no reason to select the particularly claimed combination of elements.

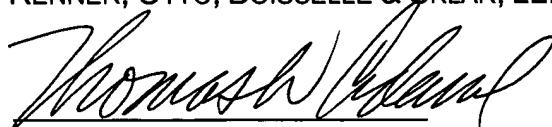
For these reasons, Appellant respectfully submits that the Examiner has not met the legal prerequisites for a *prima facie* case of obviousness, and the rejections of Appellant's claims as obvious over the combination art references should be reversed.

IX. CONCLUSION

For the above reasons, the rejection of Appellant's claims is improper and should be reversed. Appellant respectfully requests the Board to reverse the Examiner's rejection of the presently pending the claims.

Should a Petition for Extension of Time be necessary for the present Appeal Brief to be timely filed (or if such a petition has been made and an additional extension is necessary) such petition is hereby made. If any additional fees are required for the filing of this paper, the Commissioner is authorized to charge those fees to Deposit Account #18-0988, Docket No. AREWP0105US.

Respectfully submitted,
RENNER, OTTO, BOISSELLE & SKLAR, LLP



Thomas W. Adams
Registration No. 35,047

Date: September 2, 2004
1621 Euclid Ave., 19th Floor
Cleveland, Ohio 44115
(216) 621-1113

APPENDIX:

CLAIMS ON APPEAL

19. A multi-layer coating having a polished effect for the surface of an article of manufacture, the multi-layer coating comprising: a polymeric layer overlying the surface of the article; a metal layer overlying the polymeric layer comprising at least one atomized metal; a corrosion inhibiting inorganic layer overlying the metal layer, wherein the corrosion inhibiting inorganic layer is a conversion coating; and a transparent top coat layer overlying the corrosion inhibiting inorganic layer.

20. The multi-layer coating of claim 19 wherein the corrosion inhibiting inorganic layer is selected from the group consisting of one or more oxide, salt, and combination thereof of a metal selected from the group consisting of aluminum, cadmium, cobalt, cesium, copper, manganese, molybdenum, nickel, silicon, titanium, zinc, and zirconium.

21. The multi-layer coating of claim 19 wherein the top coat layer comprises an organic coating.

22. The multi-layer coating of claim 19 wherein the top coat layer comprises a ceramic coating.

23. The multi-layer coating of claim 19 wherein the top coat layer comprises an organopolysiloxane coating.

24. The multi-layer coating of claim 19 further comprising an adhesion promoting layer between the polymeric layer and the metal layer.

25. A multi-layer coating having a polished effect for the surface of an article of manufacture, the multi-layer coating comprising: a first corrosion inhibiting inorganic coating overlying the surface of the article; a polymeric layer overlying the first corrosion inhibiting inorganic coating; a metal layer overlying the polymeric layer comprising at least one atomized metal; a second corrosion inhibiting inorganic layer overlying the metal layer; and a transparent top coat layer overlying the corrosion inhibiting inorganic layer; wherein the first and second corrosion inhibiting inorganic coatings may be the same or different.

26. The multi-layer coating of claim 25 wherein the first and second corrosion inhibiting inorganic coatings are independently selected from the group consisting of one or more oxide, salt, and combination thereof of a metal selected from the group consisting of aluminum, cadmium, cobalt, cesium, copper, manganese, molybdenum, nickel, silicon, titanium, zinc, and zirconium.

27. The multi-layer coating of claim 25 wherein the top coat layer comprises an organic coating.

28. The multi-layer coating of claim 25 wherein the top coat layer comprises a ceramic coating.

29. The multi-layer coating of claim 25 wherein the top coat layer comprises an organopolysiloxane coating.

30. The multi-layer coating of claim 25 further comprising an adhesion promoting layer between the polymeric coating and the metal layer.

31. The multi-layer coating of claim 25 wherein the first corrosion inhibiting inorganic layer is a conversion coating.

32. The multi-layer coating of claim 25 wherein the second corrosion inhibiting inorganic layer is a conversion coating.

33. The multi-layer coating of claim 25 wherein both the first corrosion inhibiting inorganic layer and the second corrosion inhibiting inorganic layer are conversion coatings.